G. F. READ.

MACHINERY FOR POLISHING AND SETTING THE SOLE EDGES OF BOOTS AND SHOES.

No. 193,347. Patented July 24, 1877.

Fig. 1.

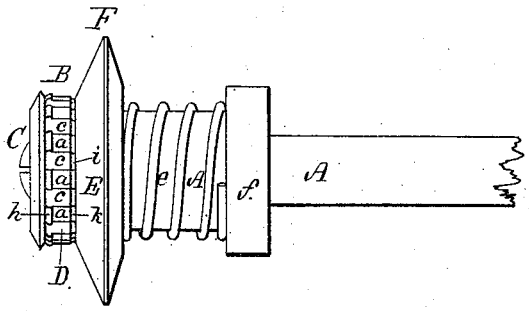


Fig. 2.

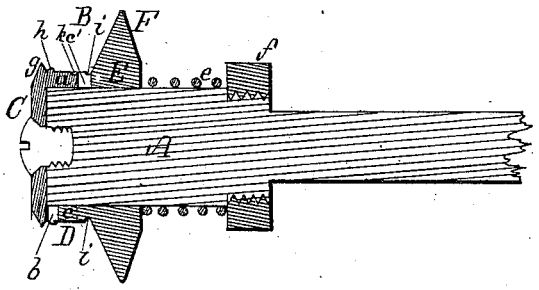
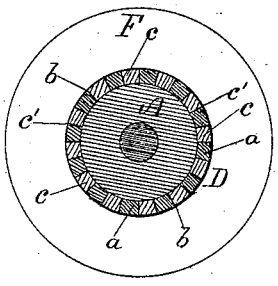


Fig. 3.



Witnesses.
F. Hunnewell.
W. E. Boardman.

Inventor.
Geo. F. Read,
H. Curtis, Atty.

UNITED STATES PATENT OFFICE.

GEORGE F. READ, OF NEW ENGLAND VILLAGE, MASSACHUSETTS.

IMPROVEMENT IN MACHINERY FOR POLISHING AND SETTING THE SOLE-EDGES OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. **193,347**, dated July 24, 1877; application filed April 6, 1877.

To all whom it may concern:

Be it known that I, GEORGE F. READ, formerly of Lynn, Essex county, Massachusetts, now residing at New England Village, Grafton, Worcester county, Massachusetts, have invented certain Improvements in Rotary Edge-Keys for Polishing Boots and Shoes, of which the following is a specification:

This improvement relates to a class of machines for polishing or "setting" the edges of boot and shoe soles in which the polishing device is a rotary disk or wheel, which revolves in contact with the sole-edge.

The drawings accompanying this specification represent, in Figure 1, a side elevation, in Fig. 2 a longitudinal section, and in Fig. 3 a cross-section, of an edge burnishing or setting tool embracing my improvement.

In these drawings, A represents an arbor or shaft, which constitutes the support of the burnishing-tool B, and forms part of an edge-setting machine.

To the front end of the arbor or shaft A, I affix a circular disk or hub, C, whose perimeter, D, is somewhat larger than that of such shaft, and is scored or indented to produce a series of teeth, *a a*, &c., and a corresponding series of intermediate spaces or notches, *b b*, &c., as shown in Figs. 1 and 3 of the drawings.

In rear of the hub C, I dispose upon the shaft A a concentric sleeve or tubular hub, E, the outer portion of which is formed with a series of teeth and notches, *c c* and *c' c'*, &c., corresponding in size and number with those of the hub C, in order to interlock or engage the latter, while the inner portion F of the said sleeve E constitutes a triangular or V-shaped flange, to bear against the outer surface or tread of the sole, and constitute a guide to give proper direction to the tool as it travels about the sole-edge.

To crowd the sleeve E toward the hub C, I employ a coiled spring, *e*, which encompasses the shaft A, and exerts its stress between the said sleeve and a collar, *f*, formed upon, or secured to, the shaft, as shown in Figs. 1 and 2 of the drawings.

It will be observed that the hub C bears upon its outer edge or corner a lip, *g*, and at the junction of the base of this lip with the cylindrical or notched portion of the hub a small bead, *h*, and again at the junction of the base of the flange F and the notched portion of the sleeve E a small groove, *i*, and upon the extreme inner edge of the teeth of the hub C a like groove, *k*, which, by the rapid revolution of the tool, becomes a continuous groove, *i k*.

The lip *g* enters and travels in the seam between the boot-sole and upper, and constitutes a guide to properly direct the inner portion of the setting-tool, while the bead *h* produces a finishing score or mark upon the sole-edge.

In like manner the channel *i k* creates, when the tool is contracted or shut, a finishing bead upon the sole-edge, and when the tool is expanded the channel *i* performs a like office, the channel *k* under this latter condition having no effect.

It will be seen that, while I am enabled to increase or diminish at will the working-surface of the setting-tool, I do not lose the bead *h* and groove *i*.

What I claim, and desire to secure by Letters Patent, is—

The combination of the interlocking hubs or sleeves C E, the one movable to and from the other, as described, when the same are provided with the bead *h* and grooves *i k*, arranged substantially as and for the purposes set forth.

GEORGE F. READ.

Witnesses:

D. WHITTEMORE,

W. E. BOARDMAN.